

a second thin film transistor formed over said substrate wherein a gate of said second thin film transistor is electrically connected to said second signal line through said first thin film transistor;

an organic electroluminescent element formed over said substrate;

a power supply line formed over said substrate and electrically connected to said organic electroluminescent element through said second thin film transistor; and

a capacitor formed between the gate of the second thin film transistor and said power supply line.

~~19.~~ 28. The display device according to claim ~~18.~~ 24 wherein said power supply line extends in parallel with said second signal line.

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cancel ~~20.~~ 26. The display device according to claim ~~18.~~ 24 wherein said power supply line extends in parallel with said second signal line.

~~21.~~ 27. The display device according to claim ~~18.~~ 24 further comprising a first shift register and a second shift register, electrically connected to said plurality of first thin film transistors.--

### REMARKS

Applicant wishes to thank the Examiner for the very thorough consideration given the present application. The Examiner's Office Action of April 21, 2000 has been received and its contents carefully noted. Claims 11-20 were pending in the present application prior to the aforementioned amendment. By the above actions, claim 11 has been amended and new claims 21-27 have been added. Accordingly, claims 11-27 are now pending herein, and, for the reasons set forth in detail below, are believed to be in condition for allowance.

Initially, paragraphs 1 and 2 of the Office Action reject claims 11-13 under 35 U.S.C. §112, second paragraph, as being indefinite. In response thereto, claim 11 has been amended to overcome the §112, 2<sup>nd</sup> paragraph rejection. Accordingly, the Applicants respectfully

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request reconsideration and withdrawal of the rejection in that the claims are now believed to be in proper formal condition for allowance.

Paragraph 3 of the Office Action objects to claims 11 as containing a minor informality. By the above action, claim 11 has been amended to correct this informality.

Paragraphs 4 and 5 of the Office Action rejects claims 11-20 under 35 U.S.C. §103(a) as being unpatentable over *Luo et al.* (U.S. Patent 4,082,854) in view of *Applicants' Admitted Prior Art* (Hereinafter "*Admitted Prior Art*") and *Fischer* (U.S. Patent 3,885,196). Specifically, the Examiner contends that *Luo* discloses the basic structure of the present invention except for an organic EL device. While it may be true, as the Examiner correctly asserts, that the use of first and second thin film transistors for driving an EL element is conventional within the art, the Applicants respectfully contend, however, that the patentability of the claimed invention resides in the combination of an organic EL display and first and second thin film transistors, as will be described below. Consequently, this ground of rejection is respectfully traversed and favorable consideration is requested in view thereof.

The Applicants respectfully submit that the Office Action has failed to set forth a *prima facie* case of obviousness based upon the applied references, and that the present invention is patentably distinct over the prior art. It should be noted that three criteria must be met to establish a *prima facie* case of obviousness. *M.P.E.P.* §2143. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings to achieve the claimed invention. *Id.* Second, there must be a reasonable expectation of success. *In re Rhinehart*, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976). Third, the prior art must teach or suggest all the claim limitations. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

First, Applicants respectfully submit that the proposed modifications of *Luo* in view of *Admitted Prior Art* and *Fischer*, alone or in any reasonable combination thereof, fail to teach, disclose or reasonably suggest every feature of the claimed invention. The present invention is directed to an electroluminescence (EL) display device. In particular, the present invention is directed to an active matrix-type organic EL display device having, *inter alia*,


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at least two thin film transistors in one pixel. The pixel includes a first thin film transistor and a second thin film transistor whereby the first thin film transistor switches the second thin film transistor, and the second thin film transistor supplies a current to an organic EL layer. While the proposed *Luo* combinations appear to disclose the basic structure of the present invention, there fails to be an express or implied teaching or disclosure of an active matrix-type organic EL display device having at least two thin film transistors in one pixel, as taught by the present invention.

Even assuming, *arguendo*, that the proposed modifications disclose the claimed invention, there is a lack of suggestion as to why a skilled artisan would use the proposed modification to achieve the unobvious advantage first recognized by the Applicants. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).


Conventionally, a high voltage such as 100V is required to drive the EL element in an inorganic EL. As a result, it is difficult to manufacture thin film transistors with a high reliability inasmuch as the thin film transistors need to withstand such a high voltage. On the other hand, an organic EL can be driven at a much lower voltage, for example 10V. Therefore, it is relatively easier to manufacture thin film transistors suitable for such a low voltage, thereby an organic EL makes the use of thin film transistors more practical. While the use of an organic EL is a known and conventional concept within the art, it is the chief contention of the Applicants that they are the first to combine an organic EL with first and second thin film transistors to achieve the unobvious advantage of manufacturing thin film transistors that can be driven at a low voltage.

Since *Luo*, *Admitted Prior Art* and *Fischer*, alone or in any reasonable combination thereof, fail to recognize the criticality of employing an active matrix-type organic EL display device having at least two thin film transistors in one pixel, the Applicants respectfully submit that the combined references are inadequate for failing to render the present invention obvious. Accordingly, the Applicants respectfully request that the §103(a) rejection of the pending claims be reconsidered and withdrawn in view thereof.

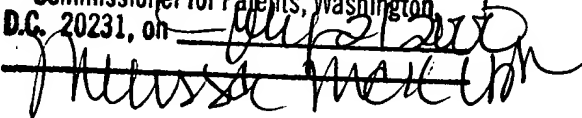


For all of the above reasons, it is respectively asserted that claims 11-27 are in proper condition for allowance. Reconsideration of these claims in view of the above comments is respectively requested. If the Examiner feels that any further discussions would be beneficial in this matter, it is requested that the undersigned be contacted.

Respectfully submitted,  
**NIXON PEABODY LLP**

  
Eric J. Robinson  
Reg. No. 38,285  
8180 Greensboro Drive, Suite 800  
McLean, Virginia 22102  
(703) 790-9110

EJR/TAV

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